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CURRENT SERIAL RECORDS

FOREST PRODUCTS LABORATORY
LIST OF PUBLICATIONS
ON
THE GROWTH, STRUCTURE, AND IDENTIFICATION
OF WOOD

October 1963

U. S. Department of Agriculture
Forest Service
Forest Products Laboratory
Madison, Wisconsin 53705

In cooperation with the University of Wisconsin

FOREST PRODUCTS LABORATORY LIST OF PUBLICATIONS

ON

THE GROWTH, STRUCTURE, AND IDENTIFICATION OF WOOD¹

This list, which begins on page 3, includes publications that give general information and the results of research by the U.S. Forest Service on the structure and the identification of wood; the effect of the cellular structure of wood on its strength, shrinkage, permeability, and other properties, the influence of environmental factors, such as light, soil, moisture, and fire, on the quality of wood produced; and secretions of economic value produced by trees and their exploitation.

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¹This list was previously issued as Forest Products Laboratory Report No. 177 under the same title.

INSTRUCTIONS FOR OBTAINING PUBLICATIONS

Publications available for distribution at this Laboratory are marked with an asterisk (*).

Single technical notes, reprints, and processed reports may be obtained free upon request from the Director, Forest Products Laboratory, Madison, Wisconsin 53705.

Federal Government bulletins, circulars, leaflets, etc., if not available for free distribution at this Laboratory, may be purchased at the prices indicated from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Send money order, draft, or cash; stamps or personal checks are not accepted.

Trade journals containing articles herein listed may often be purchased from the publishers or may be consulted in various libraries.

The Forest Products Laboratory reserves the right to furnish only those publications that will, in its judgment, give the information requested. Blanket requests or requests for a large number of copies of any individual article will not be filled except in unusual cases.

GENERAL AND MISCELLANEOUS

Title	Author	Publication and date
*Characteristics of Alaska woods.	Forest Products Laboratory	Research Paper FPL-1. 1963.
*FPL 1962: Annual report of the Forest Products Laboratory.		48 pp., 1963.
*The Forest Products Laboratory: A brief account of its work and aims.		USDA Information Bul. 105, 29 pp. Revised Dec. 1963.
*The Forest Products Laboratory: A Golden Anniversary Record.		108 pp., June 2, 3, and 4, 1960.
*Opportunities for graduate studies in forest products.		24 pp., Jan. 1960.
*Recent progress in forest products research.	Locke, E. G.	South. Lbrmn. 199(2489): 104-107, Dec. 1959.
*Opportunities and problems in utilizing wood products of the southern and south central forests.	Hall, J. A.	Soc. of Amer. Foresters Proc. 1956.
Wood: Colors and kinds.		USDA Handbook 101, 1956. Available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. Price 50 cents.
*Timber resources.	Hall, J. A.	FPL Rept. 2080. 1957. Information Reviewed and Reaffirmed 1963.

GENERAL AND MISCELLANEOUS (continued)

Title	Author	Publication and date
*Forestry and the forest products industry in Liberia.	Fobes, E. W.	South. Librn. 193(2417): 185-186, Dec. 1956.
*The U.S. Forest Products Laboratory.	Champion, F. J.	FPL Rept. 1698. Revised 1960.
*Some books about wood (a list).		FPL Rept. 399. 1961.
*Characteristics of some important commercial woods.		Separate from Forest Products Laboratory "Wood Handbook," USDA Handbook No. 72. 1955.
*Structure of wood.		Separate from Forest Products Laboratory "Wood Handbook," USDA Handbook No. 72. 1955.
*Some common fallacies about wood.		FPL Rept. 1167. 1959.
*Wood--a simple explanation, what it is and how we use it.	Champion, F. J.	FPL Rept. 1972. 1954. Information Reviewed and Reaffirmed 1960.
The U.S. Forest Products Laboratory.	Champion, F. J.	Jour. For. Prod. Res. Soc. 4(4):153-157, Aug. 1954.
*Technique used in tracing the Lindbergh kidnaping ladder.	Koehler, Arthur	Jour. of Criminal Law and Criminology, 1937. FPL Rept. D1420. 1958. Reissued 1958.
*Southern cypress terminology.	Gerry, Eloise	FPL Rept. SR-20. 1953.

GENERAL AND MISCELLANEOUS (continued)

Title	Author	Publication and date
Products of American forests.	Hall, J. A., & Mosley, T. J.	USDA Unnumbered Pub. 1939. (Slightly revised 1946.) Price 20 cents.
Effect of heating wet wood on subsequent dimensions.	Koehler, Arthur	Amer. Wood-Preservers' Assn. Proc., 1933.
Staining living trees on the stump.	Brown, W. R.	Jour. Forestry, Nov. 1928.

THE STRUCTURE AND IDENTIFICATION OF WOOD

(For additional references on wood structure, see also other headings)

General--not pertaining to individual species or genera

Title	Author	Publication and date
*Torus of the bordered-pit membrane in conifers.	Sachs, I. B.	Nature 198:906-907, July 1, 1963.
*Specific gravity of <u>Populus</u> species and hybrids.	Paul, B. H.	FPL Rept. 2060. 1956. Information Reviewed and Reaffirmed 1963.
Bark structure of North American conifers.	Chang, Ying-Pe	USDA Tech. Bull. 1095. Dec. 1954. Price 35 cents.
*Inside wood--a short trip into the interior for the layman.	Champion, F. J.	FPL Rept. 1995. 1954. Information Reviewed and Reaffirmed 1960.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

General (continued)

Title	Author	Publication and date
*Differences between heart-wood and sapwood.		: FPL Tech. Note 189. 1952. : Reissued 1961.
*Wood identification at the U.S. Forest Products Laboratory.	: Kukachka, B. F.	: FPL Rept. 2232. 1961.
*Electron microscope expands horizons in wood research.	: Sachs, I. B.	: FPL Rept. 2256. 1962.
*What is meant by "hard-woods" and "softwoods?"		: FPL Tech. Note 187. Re-issued 1960.
*Distribution of hot-water soluble material in cell walls and cavities of red-wood.	: Tarkow, H., & : Krueger, J.	: For. Prod. Jour. 11(5): : 228-229, May 1961.
*Determining the distribution of interstructural openings in wood.	: Stamm, A. J., & : Wagner, E.	: For. Prod. Jour. 11(3): : 141-144, Mar. 1961.
*Identification of coniferous woods.	: Kukachka, B. F.	: Tappi 43(11):887-896. Nov. : 1960.
Arrangement of the cellulose crystallites in ray cells of white oak as determined by X-rays.	: Gross, S. T., : Clark, G. L., & : Ritter, G. J.	: Paper Trade Jour., Dec. 7, : 1939.
Crystal arrangement and swelling properties of fibers and ray cells in basswood holocellulose.	: Ritter, G. J., & : Mitchell, R. L.	: Paper Trade Jour., Feb. 9, : 1939.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

General (continued)

Title	Author	Publication and date
Microstructure of a wood pulp fiber.	: Ritter, G. J., & : Chidester, G.H.	: Paper Trade Jour., Oct. : 1928.
*The identification of furniture woods.	: Koehler, A.	: U.S. Dept. of Agr. Misc. : Cir. No. 66. 1926.
Chemistry of wood:		
IX--Springwood and summerwood.	:) :) :)	: Indus. & Eng. Chem. 18: : 608-609, 1926.
VIII--Further studies of sapwood and heartwood.	:) :) :)Ritter, G. J.,	: Indus. & Eng. Chem. 15: : 1055, 1923.
VI--The results of analysis of heartwood and sapwood of some American woods.	:) & :) Fleck, L. C. :) :)	: Indus. & Eng. Chem. 15: : 1055, 1923.
V--Results of analysis of some American woods.	:) :)	: Indus. & Eng. Chem., Nov. : 1922.

By Species

American Woods

Species	Title	Author	Publication and date
Ash	: *How to distinguish : black ash from com- : mercial white ash : lumber.	: : : :	: FPL Tech. Note D-11. : Reissued 1958.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

By Species (continued)

American Woods (continued)

Species	Title	Author	Publication and date
Basswood	Utilization of basswood: (1 page, 1 plate on structure).	Brush, W. D.	USDA Bull. 1007. 1922. Out of print.
Beech birch (see maple)	Some physical and mechanical properties of American beech. (Copies available from the Northeastern Experiment Station, 102 Motors Ave., Upper Darby, Pa. 19082.)	Paul, B. H., & Drow, J. T.	Northeast Tech. Com. on the Utilization of Beech Series No. 1, 17, pp., 1951.
Douglas-fir	*The identification of Douglas-fir wood.		FPL Tech. Note 198. 1958.
Elm	Utilization of elm (1 page, 3 plates on structure).	Brush, W. D.	USDA Bull. 683. 1918. Out of print.
Fir	*Some physical and mechanical properties of noble fir.	Paul, B. H., Dohr, A. W., & Drow, J. T.	FPL Rept. 2168. 1959.
Hemlock	*"Black streak" in western hemlock: Its characteristics and in- fluence on strength. *Western hemlock "floccosoids" (white spots or streaks).	Luxford, R. F., Wood, L. W., & Gerry, Eloise Gerry, Eloise	FPL Rept. 1500. 1943. Information Reviewed and Re- affirmed 1960. FPL Rept. 1392. 1943. Information Reviewed and Re- affirmed 1960.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

By Species (continued)

American Woods (continued)

Species	Title	Author	Publication and date
Hemlock (continued)	*Properties of western hemlock and their relation to uses of the wood (2 plates on structure).	Johnson, R.P.A., & Gibbons, W. H.	USDA Tech. Bull. 139. 1929.
Larch	*Properties of western larch and their relation to uses of the wood (2 plates on structure).	Johnson, R.P.A., & Bradner, M. I.	USDA Tech. Bull. 285. 1932.
Maple	*How to tell birch, beech, and maple apart. *Bird's eye in maple are not due to dormant buds.Same. Dormant buds are not the cause of bird's-eye in maple.	Pillow, M. Y.	FPL Tech. Note 116. 1952. Reissued 1962. Hardwood Record, Sept. 1930. Wood Working Indus., Sept. 1929.
Oak	*Identification of oak woods. *Occurrence of tension wood and related seasoning defects in California black oak.	Wahlgren, H.E.	FPL Tech. Note 125. Reissued 1961. FPL Rept. 2106. 1958.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

By Species (continued)

American Woods (continued)

Species	Title	Author	Publication and date
Oak (continued)	*Second-growth oak: Part I (white oaks)	Paul, B. H.	South. Lbr. Jour. 63(1):14-15, 30, Jan. 1959.
	Part 2 (red oaks)		South. Lbr. Jour. 63(2):16-18, Feb. 1959.
	*Some properties of California white oak and Oregon white oak.	Paul, B. H., Dohr, A.W., & Drow, J.T.	FPL Rept. 2135. 1958.
	*Specific gravity, shrinkage, and strength of tanoak.	Paul, B. H., Dohr, A.W., & Drow, J. T.	FPL Rept. 2041. 1955. Information Reviewed and Re- affirmed 1960.
Pine	*The white pine group.		FPL Tech. Note 215. Reissued 1957.
	*Resin distribution in second-growth ponderosa pine.	Paul, B. H.	FPL Rept. 2046. 1955. Information Reviewed and Re- affirmed 1960.
Spruce	*Radial streak (red) and giant resin ducts in spruce.	Gerry, Eloise	FPL Rept. 1391. 1956.
Walnut	*Black walnut for gun- stocks.	Paul, B. H.	South. Lbrmn., Apr. 15, 1943.
Willow	*Some physical proper- ties of Gulf black willow	Paul, B. H.	South. Lbrmn., Dec. 1959.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

By Species (continued)

American Woods (continued)

*AMERICAN WOODS Series: Common and scientific names, distribution and growth, production, products, properties, uses and references for species and species groups following:

Alder, red	Osage-orange
Baldcypress	Persimmon
Buckeye	Pine, eastern white
Butternut	ponderosa
Cedar, Alaska	red
eastern red	southern
incense-	sugar
northern white-	western white
Port Orford white-	Poplar, balsam
Cherry, black	Redwood
Chestnut	Spruce, Sitka
Fir, Douglas-	Sweetgum
noble	Sycamore, American
Hackberry	Tamarack
Hemlock, eastern	Tupelo
western	Walnut, black
Holly, American	Willow, black
Larch, western	Yellow-poplar
Locust, black	
Maple	
Oaks, eastern	

Foreign Woods

Title	:	Author	:	Publication and date
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Observations on <u>Andro-</u>	:	Koeppen, R. C.	:	Brittonia 15:145-150, Apr.
<u>calymma</u> (Cassieae,	:		:	1963.
<u>Caesalpiniaceae</u>).	:		:	
	:		:	

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

Foreign Woods (continued)

Title	Author	Publication and date
*Characteristics of some im-ported woods.	Kukachka, B. F.	FPL Rept. 2242. 1962.
*The woods of Liberia.	Kyrn, J. M., & Fobes, E.	FPL Rept. 2159. 1959.
*Some publications on domes-tic and foreign woods.		FPL Rept. 1479. Revised 1961.
*How to distinguish mahogany and walnut from sweetgum.		FPL Tech. Note 103. Re-issued 1953.
*Distinguishing characteristics of mahogany and woods commonly called mahogany.		FPL Tech. Note 162. 1952. Reissued 1962.
*Some characteristics of Brazilian parana pine af-fecting its use for millwork.	Pillow, M. Y.	For. Prod. Res. Soc. Proc., Vol. 5, pp. 297-302, 1951.

By Country of Origin

FOREIGN WOODS Series:

Africa

- *Agba, Gossweilerodendron balsamiferum (Verm.) Harms, by B. F. Kukachka. FPL Rept. 2024. Revised 1961.
- *Avodire, Turraeanthus africanus (Welw. ex C. DC.) Pellegr., by R. C. Koeppen and B. F. Kukachka. FPL Rept. 1905. Revised 1961.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

By Country of Origin (continued)

FOREIGN WOOD Series: (continued)

Africa (continued)

*Kokrodua, Afrormosia elata Harms, by B. F. Kukachka. FPL Rept. 1978.
Revised 1960.

Asia

*Klinki, Araucaria klinkii Lauterback, by Eloise Gerry. FPL Rept. 1987.
1954. Information Reviewed and Reaffirmed 1960.

*Palosapis, Anisoptera spp., by B. F. Kukachka. FPL Rept. 2051. 1956.
Information Reviewed and Reaffirmed 1962.

*Sen, Kalopanax pictus (Thumb.) Nakai, by B. F. Kukachka. FPL Rept. 1979.
1957. Information Reviewed and Reaffirmed 1959.

Introduced Species

*Athel tamarisk, Tamarix aphylla (L.) Karst, by Eloise Gerry. FPL Rept.
1986. 1954. Information Reviewed and Reaffirmed 1959.

Tropical America

*Alerce, Fitzroya cupressoides (Molina) Johnston (= F. patagonica J. D. Hooker).
FPL Report 1982. 1954. Information Reviewed and Reaffirmed 1961.

*Angelique, Dicorynia guianensis Amsh., by B. F. Kukachka. FPL Rept. 1787.
Revised 1958.

*Balsa, Ochroma lagopus SW., by W. D. Brush. Unnumbered leaflet. 1945.

*Brazilian araucaria ("Parana pine"), Araucaria angustifolia (Bert.) O. Kuntze,
by W. D. Brush. Unnumbered leaflet. 1945.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

By Country of Origin (continued)

FOREIGN WOODS Series: (continued)

Tropical America (continued)

- *Cativo, Prioria copaifera, by B. F. Kukachka and J. M. Kryn. FPL Rept. 1998. Revised 1958.
- *Corisa, Chorisia insignis HBK, by B. F. Kukachka. FPL Rept. 1996. Revised 1961.
- *Crabwood, Carapa spp., by B. F. Kukachka. FPL Rept. 2247. 1962.
- *Courbaril, Hymenaea spp., by J. M. Kryn. FPL Rept. 1942. Revised 1956. Information Reviewed and Reaffirmed 1962.
- *Greenheart, Ocotea rodioei (Schomb.) Mez., by W. D. Brush. Unnumbered leaflet. 1944.
- *Guanacaste, Enterolobium cyclocarpum (Jacq.) Gris., by Eloise Gerry. FPL Rept. 1985. 1954. Information Reviewed and Reaffirmed 1960.
- *Ishpingo, Amburana acreana (Ducke) A. C. Smith, by B. F. Kukachka. FPL Rept. 1915. Revised 1961.
- *Mahogany, Swietenia macrophylla King, by B. F. Kukachka. FPL Rept. 2167. 1959.
- *Marupa, Simarouba amara Aubl., by B. F. Kukachka. FPL Rept. 1956. 1960.
- *Primavera, Cybistax donnell-smithii, by B. F. Kukachka. FPL Rept. 2021. Revised 1958.
- *Yemeri, Vochysia hondurensis Sprague, by J. M. Kryn. FPL Rept. 1946. Revised 1956. Information Reviewed and Reaffirmed 1962.

THE STRUCTURE AND IDENTIFICATION OF WOOD (continued)

Fiber Lengths

Title	Author	Publication and date
*Elements of wood fiber structure and fiber bonding.	Simmonds, F. A. & Chidester, G. H.	Research Paper FPL-5. 1963.
*American woods for paper making.		FPL Tech. Note 212. Revised 1953.
Length of fibers in certain Yucatan hardwoods.	Pillow, M. Y.	Tappi 35(5):238-240, May 1952.

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES

Title	Author	Publication and date
*Protect imported carvings with PEG.	Mitchell, H. L., & Fobes, E. W.	For. Prod. Jour. 12(10): 476-477, Oct. 1962.
*A concept of intrinsic wood quality, and nondestructive methods for determining quality in standing timber.	Mitchell, H. L.	FPL Rept. 2233. 1961.
*Tension wood in cottonwood its effect on density, toughness, and compression.	Lassen, L. E.	For. Prod. Jour., Mar. 1959.

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES
(continued)

Title	Author	Publication and date
*Occurrence of tension wood and related seasoning defects in California black oak.	Wahlgren, H. E.	FPL Rept. 2106. 1958.
*Juvenile wood in conifers.	Paul, B. H.	FPL Rept. 2094. 1957. Information Reviewed and Reaffirmed 1963.
*Lengthwise shrinkage in ponderosa pine.	Paul, B. H.	For. Prod. Jour. 7(11): 408-410, Nov. 1957.
*Swelling of springwood and summerwood in softwood.	Browne, F. L.	For. Prod. Jour. 7(11): 416-424, Nov. 1957.
*Growth and specific gravity responses in a thinned red pine plantation.	Paul, B. H.	Jour. Forestry 55(7):510- 512, July 1957.
*Effect of condition and kind of wood on groundwood pulp quality.	Schafer, E. R.	FPL Rept. 2220. 1961.
*Significance of tension wood in furniture cuttings of red oak.	Lassen, L. E., & Cooper, G. A.	FPL Rept. 2193. 1960.
*The longitudinal shrinkage of cativo.	Fleischer, H. O.	Tropical Woods 105:1-5, Oct. 1956.
*Specific gravity of <u>Populus</u> species and hybrids.	Paul, B. H.	FPL Rept. 2060. 1956. Information Reviewed and Reaffirmed 1963.
*Changes in spiral grain direction in ponderosa pine.	Paul, B. H.	FPL Rept. 2058. 1956. Information Reviewed and Reaffirmed 1963.

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES

(continued)

Title	Author	Publication and date
*Comparisons of species of wood for gunstocks.	Paul, B. H.	FPL Rept. 1723. 1955. Information Reviewed and Reaffirmed 1960.
*Detection of compression failures in wood.		FPL Rept. 1588. 1944. Information Reviewed and Reaffirmed 1961.
*Longitudinal shrinkage of wood.		FPL Rept. 1093. Revised 1960.
*Seasoning green-wood carvings with polyethylene glycol-1000.	Mitchell, H. L., & Iversen, E. S.	For. Prod. Jour. 11(1):6-7, Jan. 1961.
New antishrink treatment improves wood for gunstocks, other uses.	Mitchell, H. L.	Wood and Wood Products 65(11):50, 52, 102, Nov. 1960.
*New chemical treatment curbs shrink and swell of walnut gunstocks.	Mitchell, H. L., & Wahlgren, H. E.	For. Prod. Jour. 9(12): 437-441, Dec. 1959 and Supplement, Aug. 1961.
Effect of condition and kind of wood on groundwood pulp quality.	Schafer, E. R.	Mechanical Pulping Manual, Chapter III, Tappi Monograph Series No. 21, 1960.
*...Same		FPL Rept. 2220. 1961.
Occurrence of compression wood in black spruce and its effect on properties of groundwood pulp.	Pillow, M. Y., Schafer, E. R., & Pew, J. C.	Tech. Assn. Pulp & Paper Indus. Tech. Papers, June 1936; Paper Trade Jour., Apr. 16, 1936; Paper Mill & Wood Pulp News, Apr. 11, 1936.
*...Same: Compression wood in mechanical pulp.		FPL Rept. 1288. 1936. Information Reviewed and Reaffirmed 1959.

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES
(continued)

Title	Author	Publication and date
*Grain separation and related defects in Douglas fir door stock.	Davis, E. M.	The Wood-Worker 74(11): 12-13, 26-30, Jan. 1956.
*Presence of tension wood in mahogany in relation to longitudinal shrinkage.	Pillow, M. Y.	FPL Rept. 1763. 1950. Information Reviewed and Reaffirmed 1959.
*Studies of compression failures and their detection in ladder rails.	Pillow, M. Y.	FPL Rept. 1733. 1949. Reprinted 1962.
*Guide to determining slope of grain in lumber and veneer.	Koehler, Arthur	FPL Rept. 1585. Information Reviewed and Reaffirmed 1960.
*Detection of figured wood in standing trees.	Pillow, M. Y.	FPL Rept. 2034. 1955. Information Reviewed and Reaffirmed 1960.
Tension wood in eastern cottonwood.	Kaeiser, M., & Pillow, M. Y.	Central States For. Exp. Sta. Tech. Paper 149, 9 pp. illus., Nov. 1955.
*Relationship between specific gravity and percentage of summerwood in wide-ringed, second-growth Douglas-fir.	Smith, Diana	FPL Rept. 2045. 1955. Information Reviewed and Reaffirmed 1960.
*Raised, loosened, torn, chipped, and fuzzy grain in lumber.	Paul, B. H.	FPL Rept. 2044. 1955. Information Reviewed and Reaffirmed 1959.

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES

(continued)

Title	Author	Publication and date
*Specific gravity, shrinkage, and strength of tanoak.	Paul, B. H.	FPL Rept. 2041. 1955. Information Reviewed and Reaffirmed 1960.
*Variations in fibril angles in slash pine.	Hiller, C. H.	FPL Rept. 2003. 1954. Information Reviewed and Reaffirmed 1959.
*Longitudinal shrinkage of wood.		FPL Rept. 1093. Revised 1960.
*Compression wood: Importance and detection in aircraft veneer and plywood.	Pillow, M. Y.	FPL Rept. 1586. 1943. Information Reviewed and Reaffirmed 1959.
*How growth of white pine affects its properties for matches.	Pillow, M. Y.	FPL Rept. 1950. 1953. Information Reviewed and Reaffirmed 1959.
*Patterns of variation in fibril angles in loblolly pine.	Pillow, M. Y., Terrell, B. Z., & Hiller, C. H.	FPL Rept. 1935. Information Reviewed and Reaffirmed 1959.
Effects of tension wood in hardwood lumber and veneer.	Pillow, M. Y.	South. Lbrmn., Aug. 1, 1952.
*...Same		FPL Rept. 1943. 1953. Information Reviewed and Reaffirmed 1962.
*Chemical analyses of wood.		FPL Tech. Note 235. Revised 1952.
*Distribution of tension wood and its relation to longitudinal shrinkage in aspen.	Terrell, B. Z.	FPL Rept. 1917. 1952. Information Reviewed and Reaffirmed 1958.

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES

(continued)

Title	Author	Publication and date
*Longitudinal shrinkage of wood.		FPL Tech. Note 234. 1952. Reissued 1961.
*Some characteristics of young plantation-grown red pine in relation to properties of the wood.	Pillow, M. Y.	For. Prod. Res. Soc. Jour. 2(1):25-31, Apr. 1952.
*Selecting white oak trees for bending lumber.	Pillow, M. Y.	For. Prod. Res. Soc. Proc. 5:87-92, 1952.
*Some comparative characteristics of second-growth and old-growth redwood.	Paul, B. H.	For. Prod. Res. Soc. Proc., 1951.
What is compression wood and tension wood; and what is their practical significance?	Pillow, M. Y.	South. Lbrmn. 182(2277): 52, Feb. 15, 1951.
*Guides for selecting tough ash.	Pillow, M. Y.	South. Lbrmn., Aug. 1, 1956.
*Occurrence of gelatinous fibers and their effect upon properties of hardwood species.	Akins, Virginia, & Pillow, M. Y.	For. Prod. Res. Soc. Proc., 1950.
Variations in longitudinal shrinkage of second-growth Douglas-fir.	Pillow, M. Y.	Jour. Forestry, May 1949.
*The need of quality control in future timber crops.	Paul, B. H.	Published in Soil, Food & Health, papers delivered at the Conf. on Conservation, Nutrition & Health, Athens, Ohio. June 1948. Pub. 1949.

THE RELATION OF WOOD STRUCTURE TO ITS PROPERTIES AND USES
(continued)

Title	Author	Publication and date
Discoloration of swamp black gum pulpwood in storage.	Schafer, E. R., Pew, J. C., & Pillow, M. Y.	Tech. Assn. Pulp & Paper Indus. Tech. Papers, Series 22, 1939.
Variation in the specific gravity of the summerwood of 4 species of southern pines.	Paul, B. H.	Jour. Forestry, June 1939.
Structure, occurrence, and properties of compression wood.	Pillow, M. Y.	USDA Tech. Bull. 546. 1937. Out of print.
*Properties and sulphate pulping characteristics of compression wood.	Pillow, M. Y., & Bray, M. W.	Paper Mill & Wood Pulp News, Dec. 21, 1935; Paper Trade Jour., Dec. 26, 1935.
*Compression wood cause of bowing and twisting.	Pillow, M. Y.	Wood Work. Indus., Nov. 1930; Timberman, Nov. 1930; Wood Constr., Nov. 1, 1930; Jour. For., Dec. 1930; South. Lbrmn., Mar. 1, 1931.
Cause and prevention of raised grain.	Koehler, Arthur	Timberman, Feb. 1930; South. Lbrmn., Dec. 15, 1929.
...Same: Raised grain: Its cause and prevention.		Lbr. Trade Jour., Dec. 15, 1929.
Effect of high temperature on the mode of fracture and other properties of a hardwood.	Pillow, M. Y.	Wood Work. Indus., Oct. 1929; Hardwood Rec., June 1930; South. Lbrmn., Oct. 15, 1929.
*The effect of spiral grain on the strength of wood.	Wilson, T. R. C.	Jour. Forestry, Nov. 1921.

THE RELATION OF GROWTH CONDITIONS TO WOOD QUALITY

Title	Author	Publication and date
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